

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-293564

(43)Date of publication of application : 26.10.1999

(51)Int.Cl.

D06M 15/263
D04H 3/00
D04H 3/16
D06M 10/00
D06M 10/02
D06M 14/28
H01M 2/16
// D01F 6/30
H01M 10/24
D06M101:18

(21)Application number : 10-097314

(71)Applicant : TORAY IND INC

(22)Date of filing : 09.04.1998

(72)Inventor : TAKEDA MASAOKI

(54) OLEFINIC NONWOVEN CLOTH AND ALKALI SECONDARY CELL SEPARATOR

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a separator suitable for an alkali secondary cell capable of making an electric cell have a large capacity by making a nonwoven cloth comprising an ethylene- α -olefin copolymer hydrophilic by a method of a radiation graft polymerization, a plasma graft polymerization, etc.

SOLUTION: This olefinic nonwoven cloth is obtained by melt blowing an ethylene- α -olefin copolymer obtained from a copolymerization of ethylene with an α -olefin such as 1-octene and having 0.7-7 mol.%, preferably 0.2-3 mol.% of α -olefin content to obtain a melt blown nonwoven cloth having 1-10 μm , preferably 2-7 μm average fiber diameter and $\geq 0.6 \text{ kg/m}^2$, preferably $\geq 0.6 \text{ kg/5 cm}^2$ nonwoven cloth strength. The resultant nonwoven cloth is dipped in a mixed solution of acrylic acid with methacrylic acid and treating with a radiation induced graft polymerization or a plasma graft polymerization to impart hydrophilicity of $\geq 250\%$ liquid holding fraction.